

Application No. 09/739,236
Reply to Office Action of November 17, 2003
Docket No. 8022-1037

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1-15. (cancelled)

16. (previously presented) A liquid crystal display apparatus controlling method, comprising:

providing a liquid crystal display screen;

providing a board used for said liquid crystal display screen fixedly attached to said liquid crystal display screen;

providing a variable electronic element mounted in a mounting side of said board, said variable electronic element having an operating member to control an output outputted from said variable electronic element in a single side of said variable electronic element;

forming a hole in said board;

positioning said operating member in said hole such that said operating member points in the other side opposite to said mounting side of said board, said other side being opposite to said liquid crystal display screen;

displaying an image on said liquid crystal display screen; and

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operating said operating member through said hole from said other side while viewing said image.

17. (original) The liquid crystal display apparatus controlling method according to Claim 16, wherein said operating member does not project from said other side.

18. (original) The liquid crystal display apparatus controlling method according to Claim 16, wherein said variable electronic element is mounted through a flexible printed circuit electronically and mechanically connected to said mounting side.

19. (original) The liquid crystal display apparatus controlling method according to Claim 18, wherein said flexible printed circuit covers said hole.

20. (original) The liquid crystal display apparatus controlling method according to Claim 18, wherein said variable electronic element is floated on said flexible printed circuit.

21. (original) The liquid crystal display apparatus controlling method according to Claim 18, wherein said flexible printed circuit has a flexibility to protect said variable electronic element from mechanical stress when said operating member is operated such that said mechanical stress is not applied to said liquid crystal display screen.

22. (original) The liquid crystal display apparatus controlling method according to Claim 16, wherein said variable

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electronic element is provided to overlap with said liquid crystal display screen.

23. (previously presented) A liquid crystal display apparatus, comprising:

a signal processing circuit board; and

a liquid crystal display screen electronically and fixedly connected to said signal processing circuit board, an image being displayed on a displaying side of said liquid crystal display screen, and

wherein said signal processing circuit board includes:

a board body;

a variable electronic element mounted in a mounting side of said board body, said variable electronic element having an operating member to control an output outputted from said variable electronic element in a single side of said variable electronic element; and

a hole provided in said board body, and

wherein said operating member is positioned in said hole such that said operating member points in the other side opposite to said mounting side of said board body, and

wherein said variable electronic element is provided in an opposed side opposed to said displaying side of said liquid crystal display screen such that said operating member is exposed in said opposed side through said hole.

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24. (original) The liquid crystal display apparatus according to Claim 23, wherein said variable electronic element is mounted through an attachment member electronically and mechanically connected to said mounting side.

25. (original) The liquid crystal display apparatus according to Claim 24, wherein said attachment member is a flexible printed circuit connected to said mounting side to cover said hole.

26. (original) The liquid crystal display apparatus according to Claim 24, wherein said attachment member includes a strip on which said variable electronic element is mounted and a supporting member to attach to said mounting side.

27. (original) The liquid crystal display apparatus according to Claim 24, wherein said attachment member includes a recessed block having a recess in which said variable electronic element is mounted.

28. (previously presented) A liquid crystal display apparatus comprising:

a liquid crystal display screen;

a signal processing circuit board electrically connected to said display screen and comprising a board body having a hole therethrough;

an attachment member fixedly attached only to said circuit board and only at a first side of said circuit board; and

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a variable electronic element connected to said attachment member and having an operating member, said operating member being accessible through said hole from a second side of said circuit board.

29. (previously presented) The liquid crystal display apparatus as claimed in claim 28, wherein said attachment member comprises a flexible printed circuit.

30. (previously presented) The liquid crystal display apparatus as claimed in claim 28, wherein said attachment member comprises a strip and a one of a conductive bump and a conductive pin connecting the strip to said circuit board.

31. (previously presented) The liquid crystal display apparatus as claimed in claim 28, wherein said attachment member comprises a recessed block, said variable electronic element being housed therein.

32. (previously presented) The liquid crystal display apparatus as claimed in claim 28, wherein said attachment member is structured and arranged to electrically and mechanically connect said circuit board to said variable electronic element.

33. (previously presented) The liquid crystal display apparatus as claimed in claim 28, wherein said variable electronic element comprises a variable resistor.

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34. (previously presented) The liquid crystal display apparatus as claimed in claim 28, wherein said variable electronic element comprises a variable capacitor.

35. (previously presented) The liquid crystal display apparatus as claimed in claim 28, wherein a top surface of said operating member is substantially flush with said second side.